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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicants: Kee-Hung LAI et al. Attorney Docket: P69237US0  
Serial No.: 10/690,821 Group Art Unit: 2857  
Filing Date: October 23, 2003 Examiner: Manuel L. BARBEE  
For: METHOD AND INSTRUMENT FOR EVALUATING SUPPLY CHAIN PERFORMANCE IN  
TRANSPORT LOGISTICS

TRANSMITTAL

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Examiner's Answer mailed February 7, 2007,  
transmitted herewith is Applicants' REPLY BRIEF under 37 CFR 41.41.

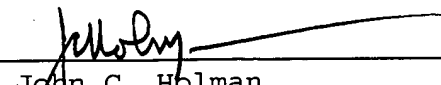
The fee has been calculated as shown below:

Claims	Highest	Present	Small Entity	Other Than A
Remaining	Number	Extra		Small Entity
After	Previously		Rate Addit. (or)	Rate Addit.
Amendment	Paid For		Fee	Fee
Total 11 - 20 = 0			x25 = \$	x 50 = \$
Indep. 3 - 3 = 0			x100 = \$	x 200 = \$
Total Additional Fee			\$	\$

XX If a Petition for Extension of Time is necessary and the Petition  
and/or the check is not enclosed, this will act as the Petition and  
applicant herewith petitions the Commissioner to extend the time  
for response and charge any fees necessary under 37 CFR 1.17  
(a)(1)-(5) to Deposit Account No. 06-1358. The Commissioner is  
also authorized to charge payment of any other additional fees  
associated with this communication or credit any overpayment to  
Deposit Account No. 06-1358. A duplicate copy of this sheet is  
attached.

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By:   
John C. Holman  
Reg. No. 22,769



**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:

Confirmation Number: 5436

Kee-Hung LAI et al.

Attorney Docket: P69237US0

Serial No. 10/690,821

Group Art Unit: 2857

Filed: October 23, 2003

Examiner: Manuel L. BARBEE

For: **METHOD AND INSTRUMENT FOR EVALUATING SUPPLY CHAIN  
PERFORMANCE IN TRANSPORT LOGISTICS**

**REPLY BRIEF UNDER 37 C.F.R. §41.41**

Mail Stop Appeal Brief -Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is a reply brief in response to the Examiner's Answer mailed February 7, 2007 regarding the above-referenced application.

**Status of claims** begins on page 2 of this paper.

**Grounds of rejection to be reviewed on appeal** appear on page 3 of this paper.

**Argument** begins on page 4 of this paper.

**I. STATUS OF THE CLAIMS**

The appealed claims are Claims 1 – 9 and 11 – 12, which are currently pending in this application. Claim 10 was cancelled in a response filed on October 6, 2005. Claims 1 – 9 and 11 – 12 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly being based on a disclosure that is not enabling and not including into the claims the elements that are critical or essential to the practice of the invention. Applicant recognizes that the rejection to Claims 1 – 9 and 11 – 12 under 35 U.S.C. § 112, second paragraph, has been withdrawn. A copy of the claims on appeal appears in the attached Appendix.

**II. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

Whether Claims 1 – 9 and 11 – 12 are properly rejected under 35 U.S.C. §112, first paragraph, because they are based on a disclosure that is not enabling and do not include into the claims the elements that are critical or essential to the practice of the invention?

### III. ARGUMENT

*Claims 1 – 9 and 11 – 12 Are Sufficiently Supported by The Specification and Include The Elements That Are Critical or Essential to The Practice of The Invention*

Applicants respectfully submit that Claims 1-9 and 11-12 are sufficiently supported by the Specification and satisfy the requirements of the first paragraph of 35 U.S.C. §112.

The embodiment of the present invention, which consists of 26 measurement items in the form of a questionnaire, for evaluating supply chain performance in transport logistics is indeed enabling. Each of the 26 measurement items constitutes a standard five-point measurement scale, with 1 = much worse than the competition, 2 = worse than the competition, 3 = same to the competition, 4 = better than the competition, and 5 = superior to the competition, to quantitatively evaluate one specific aspect of the multi-faceted supply chain performance in transport logistics.

The evaluation results enable the user to understand their firm's supply chain performance in transport logistics, and to identify their firm's performance strengths and weaknesses. To evaluate performance with respect to each of the 26 items, the user can compare their self-evaluated score point on an item with the medium point, i.e., the 3.0 value, of the scale, where an item (or the collection of the items for service effectiveness for shippers – SES, operations efficiency – OE, and service effectiveness for consignees – SEC) attaining a score point 3.0 or below indicates poor performance in that area, and an item (or a collection of items for a particular area) attaining a score point above 3.0 indicates good performance in that area.

In evaluating supply chain performance at a higher level of abstraction for the first-order factor structures (SES – 9 items, OE – 8 items, SEC – 8 items) and for the second-order factor structure (SCP in transport logistics – 26 items altogether), the user can take the average of the scores of their underlying items and compare the average value with the medium 3.0 point value of the five-point scale. A user firm achieving a value above 3.0 in SCP in transport logistics is regarded as a high performer, indicating the firm has made

conscientious efforts to enhance is SCP in transport logistics, whereas a user firm achieving a value of 3.0 or below is regarded as a low performer in that particular item (or a factor constituted by a corresponding collection of items).

In response to the Examiner's rejection on the grounds that "the disclosure does not include any disclosure for how any instrument would relate measurement items for SES, SEC or OE to the supply chain performance," Applicants wish to highlight that the classification of the 26 measurement items into the three different factors of SES, SEC, and OE was detailed on pp. 453-454 of Applicants' original paper in *Transportation Research Part E*, Vol. 38, 2002, pp. 439-456.

Applicants disagree with the Examiner's statement that "the instrument is not predictable, and the inventor provides little guidance. The specification does not disclose any specific way to measure items." The instrument *is* a questionnaire that is made up of 26 measurement items, each of which is measured on a five-point scale. As detailed on pp. 446-447 of Applicants' original paper in *Transportation Research Part E*, the instrument (26 measurement items) was tested and the results of validity and reliability tests conducted to date testify the instrument is a very reliable and predictable tool. The results show a Cronbach's alpha coefficient value  $> 0.70$  which indicates that the measurement items for SES, SEC and OE are internally consistent. The instrument was further validated by item-to-total correlation test and confirmatory factor analysis. The classification of these 26 items into the three factors of SES, SEC and OE was clearly specified in Applicants' original paper in *Transportation Research Part E*. Given these specifications, the evaluation results constitute a prediction of the user firm's supply chain performance in transport logistics. The logic of the evaluation process is similar to that of using a patented algorithm for prediction, whereby a user firm's performance on a particular item (or a collection of items) in supply chain performance in transport logistics is a function of the score point the user firm assigns through self-evaluation to that particular item (or a collection of items) on the five-point scale, with an evaluation value above 3.0 indicating good performance and an evaluation value of 3.0 or below indicating poor performance.

This self-diagnostic method and instrument, as well as the structure of the instrument for evaluating supply chain performance in transport logistics, were detailed in p. 451 of the original paper in *Transportation Research Part E*. Following are relevant extracts from the paper.

“The multidimensional conceptualizations, i.e., SES, OE and SEC, provide insights into the construct of SCP in transport logistics and its relationships with the underlying dimensions. First, the items (9 for SES, 8 for OE and 9 for SEC) and the sub-dimensions (e.g. SES-REL, OE-COST, SEC-REL) of the construct are specific to the transport logistics at item and sub-dimension levels. Second, conceptualization of the construct at higher levels, i.e., first- (SES, OE, SEC) and second- (SCP in transport logistics) levels, provide managers with an opportunity to look at SCP in transport logistics at a higher level of abstraction beyond the individual item and sub-dimension tiers.”

“At the individual item and sub-dimensions levels, managers might look at the performance for each individual item and sub-dimension and may identify areas in need of special attention. For instance, if a service provider underperforms in the SES-REL item “fulfill promises to shippers”, this would signal a need for improvement actions for that particular item. On the other hand, an analysis of the construct at a higher level of abstraction offers several potentially critical advantages. It may reveal patterns not readily by studying individual items and sub-dimensions only. For instance, a service provider underperforms in certain SES items and outperforms in certain SEC items. If the items and sub-dimensions were not grouped according to the models validated in this study, managers would have no clue to identifying areas for improvement or for formulating strategic initiative. Performance evaluation at a higher level of abstraction helps to reveal the necessity for improvement actions in one area (e.g. SES) or prescribe a strategy for maintaining performance in another area (e.g. SEC), where the service provider may have gained a competitive edge.”

It is obvious that a person of ordinary skill can immediately use the 26-item instrument, i.e., the questionnaire, to evaluate their firm’s supply chain performance in

transport logistics by assigning a value on the five-point scale through self-evaluation to each of the 26 items and predicting the performance outcome based on the item classification scheme. It follows that the Examiner's enablement rejection under U.S.C. 112 first paragraph is incorrect. The alleged missing features considered by the Examiner, is an inherent enablement trait understandable by a person of ordinary skill in the art.

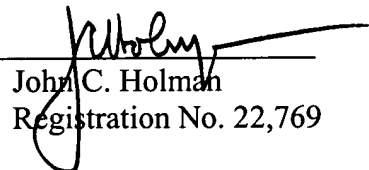
In summary, Applicants respectfully submit that a person of ordinary skill in the art is able to make and use the present invention as claimed based on the disclosure of the specification. The claims include the elements that are critical or essential to the practice of the invention.

Therefore, the rejection under 35 U.S.C. § 112, first paragraph, has been overcome. Accordingly, withdrawal of the rejections under 35 U.S.C. § 112, first paragraph, is respectfully requested.

Respectfully submitted,

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Enclosed:

CLAIM APPENDIX



#### **IV. CLAIM APPENDEX**

Claim 1. (previously presented) An instrument for evaluating supply chain performance in transport logistics including a plurality of measurement items wherein said items are divided into at least the dimension of service effectiveness for shippers, service effectiveness for consignees and operations efficiency for transport logistics providers, wherein said plurality of measured items in the dimension of service effectiveness to shippers include:

- fulfilling promises to shippers;
- solving shippers' problem;
- performing services for shippers right the first time;
- providing services at the time promised to the shippers;
- keeping shippers' records accurately;
- informing shippers exactly when services will be performed;
- giving prompt services to shippers;
- willingness to help shippers; and
- timely response to shippers' requests.

Claim 2. (previously presented) The instrument for evaluating supply chain performance in transport logistics as claimed in claim 1 wherein at least one of said service effectiveness for shippers and/or said service effectiveness for consignees is further subdivided into reliability and responsiveness.

Claim 3. (previously presented) The instrument for evaluating supply chain performance in transport logistics as claimed in claim 1 wherein said operations efficiency is further divided into cost and asset aspects.

Claim 4. (previously presented) The instrument for evaluating supply chain performance in transport logistics as claimed in claim 1 wherein said plurality of measured items include one or more items substantially related to any of the following:

- fulfilling promises to shippers;

- solving shippers' problem;
- performing services for shippers right the first time;
- providing services at the time promised to the shippers;
- keeping shippers' records accurately;
- informing shippers exactly when services will be performed;
- giving prompt services to shippers;
- willingness to help shippers;
- timely response to shippers' requests;
- reducing order management costs;
- reducing costs associated with facilities/equipment/manpower used in providing the services;
- reducing warehousing costs;
- reducing transportation costs;
- reducing logistics administration costs;
- improving the rate of utilization of facilities/equipment/manpower in providing the services;
- improving the cash to cash cycle time;
- improving net asset turns;
- fulfilling promises to consignees;
- solving consignees' problems;
- performing services for consignees right the first time;
- providing services at the time promised to the consignees;
- keeping consignees' records accurately;
- informing consignees exactly when services will be performed;
- giving prompt services to consignees;
- willingness to help consignees; and
- timely response to consignees' requests.

Claim 5. (previously presented)      A method for evaluating supply chain performance in transport logistics comprising:

providing an instrument for evaluating supply chain performance in transport logistics including a plurality of measurement items wherein said items are divided into at least the dimension of service effectiveness for shippers, service effectiveness for consignees and operations efficiency for transport logistics providers; and

evaluating performance based on an evaluation of performance of said measurement items in said instrument;

wherein said plurality of measured items in the dimension of service effectiveness to shippers include:

- fulfilling promises to shippers;
- solving shippers' problem;
- performing services for shippers right the first time;
- providing services at the time promised to the shippers;
- keeping shippers' records accurately;
- informing shippers exactly when services will be performed;
- giving prompt services to shippers;
- willingness to help shippers; and
- timely response to shippers' requests.

Claim 6. (previously presented) The instrument for evaluating supply chain performance in transport logistics as claimed in claim 2 wherein both said service effectiveness for shippers and said service effectiveness for consignees are further subdivided into reliability and responsiveness.

Claim 7. (previously presented) The instrument for evaluating supply chain performance in transport logistics as claimed in claim 6 wherein said operations efficiency is further divided into cost and asset aspects.

Claim 8. (previously presented) The instrument for evaluating supply chain performance in transport logistics as claimed in claim 1 wherein said instrument includes

operations efficiency parameters and service effectiveness parameters for shipper, consignee and transport logistics provider.

Claim 9. (previously presented) The instrument for evaluating supply chain performance in transport logistics as claimed in claim 1 wherein performance is measured and evaluated on a supply chain-wide basis.

Claim 10. (cancelled)

Claim 11. (previously presented) An instrument for evaluating supply chain performance in transport logistics including a plurality of measurement items wherein said items are divided into at least the dimension of service effectiveness for shippers, service effectiveness for consignees and operations efficiency for transport logistics providers, wherein said plurality of measured items in the dimension of service effectiveness to consignees include:

- fulfilling promises to consignees;
- solving consignees' problems;
- performing services for consignees right the first time;
- providing services at the time promised to the consignees;
- keeping consignees' records accurately;
- informing consignees exactly when services will be performed;
- giving prompt services to consignees;
- willingness to help consignees; and
- timely response to consignees' requests.

Claim 12. (previously presented) The instrument for evaluating supply chain performance in transport logistics as claimed in claim 1 wherein said plurality of measured items in the dimension of operation efficiency for transport logistics providers include:

- reducing order management costs;

reducing costs associated with facilities/equipment/manpower used in providing the services;

reducing warehousing costs;

reducing transportation costs;

reducing logistics administration costs;

improving the rate of utilization of facilities/equipment/manpower in providing the services;

improving the cash to cash cycle time; and

improving net asset turns.